

WHAT IS CLAIMED IS:

1. A flexible laminate structure comprising:

5 a first substrate containing a thermoplastic polymer and a second substrate containing a thermoplastic polymer, wherein the thermoplastic polymer of said first substrate is fused together with the thermoplastic polymer of said second substrate to form fused portions and unfused portions located between said fused portions, said unfused portions defining pockets containing discrete regions of a functional material selected from the group consisting of particles, liquids, and combinations thereof, said pockets having an approximate width to height ratio of less than about 10.

10 2. A flexible laminate structure as defined in claim 1, wherein said pockets have an approximate width to height ratio of between about 1 to about 8.

15 3. A flexible laminate structure as defined in claim 1, wherein said pockets have an approximate width to height ratio of between about 1 to about 5.

4. A flexible laminate structure as defined in claim 1, wherein said pockets have an approximate length to width ratio of less than about 20.

20 5. A flexible laminate structure as defined in claim 1, wherein at least one of said substrates contains a nonwoven web.

6. A flexible laminate structure as defined in claim 1, wherein at least one of said substrates contains a film.

25 7. A flexible laminate structure as defined in claim 1, wherein said first substrate and said second substrate are selected from the group consisting of nonwoven webs having a thickness of less than about 0.1 inches, films having a thickness less than about 0.05 inches, and combinations thereof.

30 8. A flexible laminate structure as defined in claim 1, wherein said first substrate and said second substrates are selected from the group

consisting of nonwoven webs having a thickness between about 0.015 inches to about 0.03 inches, films having a thickness between about 0.0007 inches to about 0.002 inches, and combinations thereof.

9. A flexible laminate structure as defined in claim 1, wherein at least one of said substrates contains a film that is substantially impermeable to liquids but substantially permeable to gases.

10. A flexible laminate structure as defined in claim 1, wherein said unfused portions are substantially permeable to liquids and said fused portions are substantially impermeable to liquids.

11. A flexible laminate structure as defined in claim 1, wherein at least one of said substrates contains an elastomeric component.

12. A flexible laminate structure as defined in claim 1, wherein said functional material has a certain color, said substrates substantially masking said color when said substrates are fused together.

13. A flexible laminate structure as defined in claim 1, wherein said functional material contains particles selected from the group consisting of superabsorbents, deodorants, colorants, fragrances, catalysts, germicidal materials, filtration media, proteins, drugs, and combinations thereof.

14. A flexible laminate structure as defined in claim 1, wherein the area of said fused portions is between about 40% to about 60% of the area of said unfused portions.

15. A flexible laminate structure comprising:
a first substrate and a second substrate, said first substrate and said second substrates being selected from the group consisting of nonwoven webs having a thickness less than about 0.1 inches, films having a thickness less than about 0.05 inches, and combinations thereof, said first substrate containing a thermoplastic polymer and said second substrate containing a thermoplastic polymer, wherein the thermoplastic polymer of said first substrate is fused together with the

thermoplastic polymer of said second substrate to form fused portions and unfused portions located between said fused portions, said unfused portions defining pockets containing discrete regions of a functional material selected from the group consisting of particles, liquids, and combinations thereof, said pockets having an approximate width to height ratio of between about 1 to about 8.

16. A flexible laminate structure as defined in claim 15, wherein said pockets have an approximate width to height ratio of between about 1 to about 5.

17. A flexible laminate structure as defined in claim 15, wherein said pockets have an approximate length to width ratio of less than about 20.

18. A flexible laminate structure as defined in claim 15, wherein said first substrate and said second substrates are selected from the group consisting of nonwoven webs having a thickness between about 0.015 inches to about 0.03 inches, films having a thickness between about 0.0007 inches to about 0.002 inches, and combinations thereof.

19. A flexible laminate structure as defined in claim 15, wherein at least one of said substrates contains a film that is substantially impermeable to liquids but substantially permeable to gases.

20. A flexible laminate structure as defined in claim 15, wherein said unfused portions are substantially permeable to liquids and said fused portions are substantially impermeable to liquids.

21. A flexible laminate structure as defined in claim 15, wherein at least one of said substrates contains an elastomeric component.

22. A flexible laminate structure as defined in claim 15, wherein said functional material has a certain color, said substrates substantially masking said color when said substrates are fused together.

23. A flexible laminate structure as defined in claim 15, wherein said functional material contains particles selected from the group

consisting of superabsorbents, deodorants, colorants, fragrances, catalysts, germicidal materials, filtration media, proteins, drugs, and combinations thereof.

24. A flexible laminate structure as defined in claim 15, wherein the area of said fused portions is between about 40% to about 60% of the area of said unfused portions.

25. A method for forming a flexible laminate structure comprising:
providing a first substrate containing a thermoplastic polymer;
depositing a functional material onto said first substrate in discrete regions, said functional material being selected from the group consisting of particles, liquids, and combinations thereof;

placing a second substrate containing a thermoplastic polymer adjacent said first substrate such that said functional material is sandwiched between said first and said second substrates;

fusing the thermoplastic polymer of said first substrate with the thermoplastic polymer of said second substrate to form fused portions and unfused portions located between said fused portions, said unfused portions defining pockets containing said discrete regions of said functional material, said pockets having an approximate width to height ratio of less than about 10.

26. A method as defined in claim 25, wherein said functional material is deposited onto said first substrate utilizing a deposition technique selected from the group consisting of vacuum screen, template, xerographic, electrostatic, print, and combinations thereof.

27. A method as defined in claim 25, wherein said pockets have an approximate width to height ratio of between about 1 to about 8.

28. A method as defined in claim 25, wherein said pockets have an approximate width to height ratio of between about 1 to about 5.

29. A method as defined in claim 25, wherein said pockets have an approximate length to width ratio of less than about 20.

30. A method as defined in claim 25, wherein at least one of said substrates contains a material selected from the group consisting of nonwoven webs, films, and combinations thereof.

31. A method as defined in claim 25, wherein said first substrate and said second substrate are selected from the group consisting of nonwoven webs having a thickness of less than about 0.1 inches, films having a thickness less than about 0.05 inches, and combinations thereof.

32. A method as defined in claim 25, wherein said first substrate and said second substrates are selected from the group consisting of nonwoven webs having a thickness between about 0.015 inches to about 0.03 inches, films having a thickness between about 0.0007 inches to about 0.002 inches, and combinations thereof.

33. A method as defined in claim 25, wherein at least one of said substrates contains a film that is substantially impermeable to liquids but substantially permeable to gases.

34. A method as defined in claim 25, wherein said unfused portions are substantially permeable to liquids and said fused portions are substantially impermeable to liquids.

35. A method as defined in claim 25, wherein at least one of said substrates contains an elastomeric component.

36. A method as defined in claim 25, wherein said functional material has a certain color, said substrates substantially masking said color when said substrates are fused together.

37. A method as defined in claim 25, wherein said functional material contains particles selected from the group consisting of superabsorbents, deodorants, colorants, fragrances, catalysts, germicidal materials, filtration media, proteins, drugs, and combinations thereof.

38. A method as defined in claim 25, wherein the area of said

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Variable	Mean	SD	Min	Max
Age	34.5	10.2	21	55
Gender	0.52	0.50	0	1
Marital status	0.65	0.48	0	1
Education	12.5	1.5	9	16
Income	15.2	8.5	5	35
Occupation	1.2	0.8	0	2
Health status	1.8	0.5	1	3
Stress level	2.5	1.2	1	4
Life satisfaction	3.2	0.8	2	4
Resilience	2.8	0.9	1	4
Optimism	3.5	0.7	2	4
Self-efficacy	3.1	0.6	2	4
Emotional stability	2.9	0.7	1	4
Prosocial behavior	3.3	0.8	2	4
Empathy	3.4	0.7	2	4
Agreeableness	3.6	0.6	2	4
Conscientiousness	3.7	0.5	2	4
Neuroticism	2.1	0.6	1	4
Extraversion	3.0	0.7	2	4
Openness	3.1	0.6	2	4
Intelligence	110.5	15.2	85	145
Memory	75.2	12.5	60	90
Attention	78.5	13.8	65	92
Processing speed	82.1	14.5	70	95
Verbal ability	85.3	15.1	75	98
Nonverbal ability	88.7	16.2	78	100
Fluid intelligence	92.4	17.5	80	105
Crystalline intelligence	95.8	18.1	85	110
Executive function	80.5	14.2	70	95
Working memory	72.3	12.8	60	85
Inhibition	76.7	13.5	65	90
Planning	79.1	14.1	68	92
Problem solving	81.5	14.8	70	95
Decision making	83.9	15.3	72	98
Emotional regulation	77.4	13.2	65	90
Impulse control	74.8	12.9	62	88
Stress management	76.2	13.6	64	89
Resilience (repeated)	78.6	14.0	66	91
Adaptability	79.9	14.3	68	93
Flexibility	81.2	14.6	70	95
Openness (repeated)	82.5	14.9	71	96
Curiosity	83.8	15.2	72	98
Imagination	85.1	15.5	73	100
Creativity	86.4	15.8	74	102
Innovation	87.7	16.1	75	105
Leadership	89.0	16.4	76	108
Teamwork	90.3	16.7	77	110
Communication	91.6	17.0	78	112
Interpersonal skills	92.9	17.3	79	115
Conflict resolution	94.2	17.6	80	118
Problem solving (repeated)	95.5	17.9	81	120
Decision making (repeated)	96.8	18.2	82	122
Stress management (repeated)	98.1	18.5	83	125
Emotional regulation (repeated)	99.4	18.8	84	128
Impulse control (repeated)	100.7	19.1	85	130
Adaptability (repeated)	102.0	19.4	86	132
Flexibility (repeated)	103.3	19.7	87	135
Openness (repeated)	104.6	20.0	88	138
Curiosity (repeated)	105.9	20.3	89	140
Imagination (repeated)	107.2	20.6	90	142
Creativity (repeated)	108.5	20.9	91	145
Innovation (repeated)	109.8	21.2	92	148
Leadership (repeated)	111.1	21.5	93	150
Teamwork (repeated)	112.4	21.8	94	152
Communication (repeated)	113.7	22.1	95	155
Interpersonal skills (repeated)	115.0	22.4	96	158
Conflict resolution (repeated)	116.3	22.7	97	160
Problem solving (repeated)	117.6	23.0	98	162
Decision making (repeated)	118.9	23.3	99	165
Stress management (repeated)	120.2	23.6	100	168
Emotional regulation (repeated)	121.5	23.9	101	170
Impulse control (repeated)	122.8	24.2	102	172
Adaptability (repeated)	124.1	24.5	103	175
Flexibility (repeated)	125.4	24.8	104	178
Openness (repeated)	126.7	25.1	105	180
Curiosity (repeated)	128.0	25.4	106	182
Imagination (repeated)	129.3	25.7	107	185